

## Assembling *Pachythelia villosella* Ochs.

By E. A. SADLER

While crossing a New Forest heath near Ringwood, a favourite collecting ground of mine, in company with Mr P. Rogers, on the evening of June 11th, 1969, I chanced upon a large female case of *P. villosella* attached to some short heather. As I stooped to pick it, a male flew direct and briskly to me; I netted this, and after boxing it I again picked up the hastily dropped case, and two males arrived together to be promptly netted and boxed, during which time two more males arrived together and were chased by my companion but he failed to catch them. After this hectic confusion, which took place at 8.45 on a sunny evening, we spent some minutes trying to locate the dropped case, which we eventually gave up as lost, only to find it in my net when we made to leave the area.

As no more males had arrived we assumed that their flight had ceased and the case was taken home by me that night.

It was noted the next day that the case had one end open in a tubular fashion where the night before it had been closed, and closer inspection revealed the brown shiny head of the legless and wingless female just visible within. The same evening I returned to the heath unaccompanied this time, and with the female in a perforated zinc sided assembly cage which I placed on the spot where she had been found, the time being 8 p.m. and again sunny. A male immediately arrived and was netted, but as no more were seen during the next quarter of an hour, I spent the following thirty minutes walking up other lepidoptera on the surrounding heath, during which time the cage was kept in sight, and to which nothing had assembled. The previous night's time of 8.45 having now been reached, I opened the cage for closer examination of the female, which I feared was not "calling"—though how one may know this when she remains within the pupa case as well as the cocoon I have still to discover—and directly I touched the female case, a male arrived, to be followed during the next twenty minutes by fifteen more, but only by my handling the case each time, for while left on the ground whilst handling the lively incoming male and struggling to box him (at the same time being eaten alive by mosquitoes) nothing would assemble until I again handled the cocoon, when, as if by magic, another male would arrive.

All males first appeared at about ten yards down-wind, and circled rapidly up to and around the female, the latter being a feat usually beyond *Saturnia pavonia* L. males, which I have assembled on this same heath. If they happen accidentally to pass the female (up-wind), they lose her scent and go careering off after another conquest, whereas *villosella* continues to circle the scent source repeatedly, gradually reducing the circuit.

At 9.5 p.m., with enough males for my purpose, I packed up the "forced" assembly and instead searched the heath for more cases, finding two female ones. On June 21st one of these was seen to have an open end, and contacting another friend, Mr P. Meredith, arranged a meeting with him for another try at assembly that evening. We met at 8.45 on the heath just after the sun sank behind heavy cloud. I commenced handling the case, and two males arrived to be netted by my companion, but no

more could be persuaded, despite my continued handling, for a considerable time, and this unfortunately led to the bursting of the female. I had hoped on this occasion to allow a male to have access to the female to see just how pairing can take place in such peculiar circumstances, but I will now have to restrain my curiosity for another year and another female.

Something else about this species I have never understood, is where the males are when not assembling, as I had never previously seen them apart from the above-mentioned examples, in spite of a number of visits to this, and other *villosella* localities over the years at all times of the day and night. Dare I suggest that perhaps they spend most of their time wandering around female cases trying to find a way of pairing?

Another curious thing, considering the sedentary nature of the female, is how the species appears suddenly to move perhaps a mile from the last known place where cases were seen, in the space of one season. One wonders if perhaps newly hatched larvae spin silk and allow themselves to become wind-borne as do young spiders. A strong wind at the correct time of year causing the colony to take a long leap away from its usual breeding ground.

21.x.1969.

## Isle of Canna Report for 1969

By J. L. CAMPBELL

On the 18th of June 1969 thirteen months of almost continuous good weather, unprecedented in the Hebrides, came to an end. Thereafter there was a good deal of rain and wind, interspersed with a few fine spells in which lepidoptera, built up in numbers during the fine summer of 1968 and spring of 1969, were more numerous than at any time since the famous summer of 1947. There were also several prolonged spells of fog in July, which did not interfere with catches in the moth trap, though they were useless for anything else. It was not until early September that the island streams recovered their normal flow of water.

All species of butterflies were markedly more numerous, particularly *Pieris napi* L., of which hundreds could be seen flying over arable ground, in gardens and around plantations on any fine day during the emergence of the second brood. *Pieris brassicae* L. was also very common, its larvae destroying our cabbages. *Aglais urticae* L. and *Argynnis aglaia* L. were again in evidence at the east end of the island, where a batch of about 200 larvae of the former were found on a favoured patch of nettles, and where *Brenthis selene* Schiff. was seen for the first time—hitherto it had been confined to a small area on the south-facing cliffs of Sanday.

A single specimen of *Pararge aegeria* L. was seen on the 1st of August in the identical spot where one appeared in 1968. But searching of the plantations failed to discover any others. This butterfly was also observed by Dr. H. MacLean on the Island of Eigg, where a colony may very well exist, in addition to that on the island of Rum, as there are large and well-established woods on Eigg.

Of the migrants, *Vanessa atalanta* L. was not observed until 15th July, and thereafter was noted occasionally until August 8th. On September 8th full-grown larvae were found on the same sheltered batch of nettles